

Notice of Allowability

Application No.

09/331,729

Examiner

Janis L. Dote

Applicant(s)

OSAN ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/19/05.
2. ☒ The allowed claim(s) is/are 38,39,41-47,49,51, 55 and 59-61.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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1. The examiner acknowledges the cancellation of claims 52, 53, and 56 set forth in the amendment filed on Sep. 23, 2005.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Ashley Pezzner (Reg. No. 35,646) on Dec. 8, 2005.

The application has been amended as follows:

- Cancel claims 35, 36, 48, and 50.
- Add new claims 59, 60, and 61:

-- Claim 59. (New) A toner for developing an electrostatically charged image, the toner comprising

(a) a binder resin comprised of at least one polyolefin resin having a cyclic structure, wherein the polyolefin resin having a cyclic structure comprises:

- (i) a first resin or a first resin fraction with a number average molecular weight (Mn), as measured by GPC, of less than 7,500, and

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(ii) a second resin or a second resin fraction with a number average molecular weight (Mn) of 7,500 or more, Mw of 15,000 or more, a heat distortion temperature as measured by the DIN 53461-B method of 70°C or higher and an intrinsic viscosity of 0.25 dl/g or more;

(b) a colorant;

(c) a function imparting agent; and

(d) a charge control agent and

wherein said first resin or said first resin fraction and said second resin or said second resin fraction must be present and said second resin or second resin fraction is contained in a proportion of less than 50% by weight based on the entire binder resin. --

-- Claim 60. (New) The toner for developing an electrostatically charged image as claimed in claim 59, wherein the binder resin consists of 1 to 100 parts by weight of the polyolefin resin having a cyclic structure, and 99 to 0 parts by weight of a resin selected from the group consisting of

(a) a polyester resin,

(b) an epoxy resin,

(c) a polyolefin resin,

(d) a vinyl acetate resin,

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(e) a vinyl acetate copolymer resin,

(f) an acrylate resin,

(g) a styrene-acrylate resin and

mixtures of (a)-(g). --

-- Claim 61. (New) A toner for developing an electrostatically charged image, the toner comprising

(a) a binder resin comprised of at least one polyolefin resin having a cyclic structure comprising at least three different resins or resin fractions having molecular weight ranges expressed by number average molecular weight (Mn), as measured by GPC,

(i) of less than 7500 which is a first resin or first resin fraction,

(ii) 7500 or more but less than 25,000, Mw of 15,000 or more, and an intrinsic viscosity of 0.25 dl/g or more which is a second resin or second resin fraction, and

(iii) 25,000 or more, Mw of 15,000 or more, and an intrinsic viscosity of 0.25 dl/g or more which is also part of a third resin or a third resin fraction,

and wherein said first resin or said first resin fraction and said second resin or said second resin fraction and the third resin or third resin fraction must be present and said second

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resin and third resin or second resin fraction and third resin fraction are contained in a proportion of less than 50% by weight based on the entire binder resin,

(b) a colorant;

(c) a function imparting agent; and

(d) a charge control agent.

• Claims 38, 39, 41, 44, 46, 49, 51, and 55 have been amended as follows:

Claims 38, 39, 41, 44, and 46, at line 2, delete the phrase "claim 35" and insert the phrase -- claim 59 --.

Claim 49, at line 7, delete the word "optionally"; and at line 15, after the phrase "the entire binder resin" insert the phrase -- and wherein said second resin or said second resin fraction is present and said polyolefin resin having a cyclic structure is a copolymer of an acyclic olefin and a cycloolefin compound having at least one double bond --.

Claim 51, at line 2, delete the phrase "claim 50" and insert the phrase -- claim 49 --.

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Claim 55, at line 1, delete the phrase "claim 35" and insert the phrase -- claim 59 --.

3. Claims 35, 36, and 38, presented in the claim listing filed on Sep. 23, 2005, were improperly listed as "previously presented," and therefore did not comply with 37 CFR 1.121. Those claims inadvertently omitted the reference labels (b) through (d) in claim 35, the reference labels (a) through (g) in claim 36, and the reference labels (b) and (c) in claim 48 that were present in the claims previously set forth in the amendment filed on Jan, 25, 2005. During the discussion with applicants' representative, it became apparent that a quirk of the word processing program was the likely cause of the problem. The examiner's amendment rewriting claims 35, 36, and 38 as new claims 59, 60, and 61 reproduces claims 35, 36, and 38 that were previously presented in the amendment filed on Jan. 25, 2005.

The examiner's amendment to claims 38, 39, 41, 44, 46, and 55 corrects the claim dependency of those claims due to the rewriting of claim 35 as new claim 59.

The examiner's amendment to claim 49, deleting the word "optionally" and adding the limitations of now canceled claim 50, avoids a potential interference with the subject matter recited in claim 1 of US Patent No. 6,465,145, and an

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objection as being a substantial duplicate of claim 59 under 37 CFR 1.75.

The examiner's amendment to claim 51 corrects the claim dependency of said claim due to the cancellation of claim 50.

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance:

The objection to the specification under 35 U.S.C. 132 and the rejection of claims 35, 36, 38, 39, 41-47, 49-52, 55, and 56 under 35 U.S.C. 112, first paragraph, set forth in the office action mailed on May 23, 2005, paragraphs 5 and 7, respectively, have been withdrawn in response to the Rule 132 declaration, which was executed by Dr. Klaus Berger on Oct. 10, 2005, filed on Oct. 19, 2005. The declaration provides sufficient evidence to show that one of ordinary skill in the art reading the specification, as originally filed, would have known that the German standard DIN 53461-B disclosed in the instant specification was the January 1987 revision.

The rejection of claim 52 under 35 U.S.C. 102(a) over WO 97/05529 (WO'529), as evidenced by applicants' admission at page 21 of the instant specification and the American Chemical

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Society (ACS) File Registry No. 361391-57-3, set forth in the office action mailed on May 23, 2005, paragraph 9, has been mooted by the cancellation of claim 52 set forth in the amendment filed on Sep. 23, 2005.

The rejection of claims 53 and 56 under 35 U.S.C. 103(a) over WO'529, as evidenced by applicants' admission at page 21 of the instant specification and Diamond, Handbook of Imaging Materials, pages 227 and 234, combined with US 5,487,965 (Odell), set forth in the office action mailed on May 23, 2005, paragraph 10, has been mooted by the cancellation of claims 53 and 56 set forth in the amendment filed on Sep. 23, 2005.

The terminal disclaimer filed on Sep. 23, 2005, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration dates of US Patent No. 6,846,602 B2 (Suwa) and of US Patent No. 6,790,677 B1 (Nakamura) has been reviewed and is accepted. The terminal disclaimer has been recorded.

Accordingly, the rejections of claim 49 under the judicially created doctrine of obviousness-type double patenting over claims 1-12 of U.S. Patent No. 6,846,602 B2 (Suwa) in view of Diamond, Handbook of Imaging Materials, pp. 168-169, and over claims 1-9 of U.S. Patent No. 6,790,577 B1 (Nakamura) in view of Diamond, Handbook of Imaging Materials, p. 169,

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section 4.2.3, set forth in the office action mailed on May 23, 2005, paragraphs 13 and 14, respectively, have been withdrawn.

Claims 38, 39, 41-47, 49, 51, 55, and 59-61 are allowable over the prior art of record for the reasons discussed supra, and in the office action mailed on May 23, 2005, paragraphs 2 and 15, which are incorporated herein by reference

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (571) 273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

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JLD

Dec. 8, 2005

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